THE USE OF THE ACTIVATED N-TERMINAL SIXTEEN AMINO ACID PEPTIDE OF THE ANTINEOPLASTIC PROTEIN (ANUP) AS A PHARMACOLOGICALLY ACTIVE ANTI-TUMOR AGENT

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ABSTRACT

The 16 amino acid peptide representing the partial N-terminal sequence of the Antineoplastic Protein (ANUP) is a highly active pharmacologically antitumor agent. The 16 amino acid peptide is about 50% as active as antitumor agent compared to the antitumor activity as the protein (ANUP) per se when tested as a tumor killer agent (in vitro) utilizing the human breast tumor cell line (MDA 231). The protein (ANUP) in the purified state also shows regression of both HeLa (human cervical tumor all line) and KB (human laryngeal cell line) implanted in nude mice (Sloane, Davis Tumor Targeting (1996) 2, pp 322-326. The nonapeptide is about 10% as active compared to the antineoplastic protein (ANUP) in the human breast tumor cell line in vitro assay system. Both peptides, the 9 amino acid peptide and the 16 amino acid peptide require presence of the detergent sodium dodecyl sulfate to activate the peptides for full pharmacological antitumor activity.

~~The ANUP N-terminal 16 amino acid peptide contains the following sequence (as L-Amino Acids):~~

1.	Pyroglu	
2.	Leu	L
3.	Lys	K
4.	Cys	C
5.	Tyr	Y
6.	Thr	T
7.	Cys	C
8.	Lys	K
9.	Glu	E
10.	Pro	P
11.	Met	M
12.	Thr	T
13.	Ser	S
14.	Ala	A
15.	Ala	A
~~16.~~	~~Cys~~	~~C~~

The use of the N-terminal Sixteen Amino Acid Peptide as a Pharmacologically Active Anti-tumor Agent

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to the use of the 16 amino acid peptide